

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 April 2004 (29.04.2004)

PCT

(10) International Publication Number
WO 2004/036456 A2

- (51) International Patent Classification⁷: G06F 17/30 (74) Agent: KAUFFMANN, Wolfgang; Postal Code, 70548 Stuttgart (DE).
- (21) International Application Number: PCT/EP2003/050620
- (22) International Filing Date: 11 September 2003 (11.09.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 02023362.3 18 October 2002 (18.10.2002) EP
- (71) Applicant (for all designated States except US): INTERNATIONAL BUSINESS MACHINES CORPORATION [US/US]; New Orchard Road, Armonk 10504 (US).
- (71) Applicant (for LU only): IBM DEUTSCHLAND GMBH [DE/DE]; Pascalstrasse 100, 70569 Stuttgart (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ARRAS, Patrick [DE/DE]; Hintere Strasse 13, 71263 Weil der Stadt (DE). STEINHOFF, Alfons [DE/DE]; Kirchhalde 5, 71083 Herrenberg (DE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR ONLINE ANALYTICAL PROCESSING (OLAP)

200

Fact	Customer	Address	Month	Sales
1	Miller	a4711	Jul	30
2	Brown	a4711	Jan	60
3	Miller	a4711	Jan	30
4	Miller	a4711	May	70
5	Miller	a0815	Dec	30
6	Jones	a4711	Jan	50
7	Jones	a0815	Aug	50
8	Brown	a0815	Oct	60
9	Jones	a4711	Nov	20
10	Miller	a4711	Mar	40
11	Brown	a4711	Sep	10
12	Jones	a0815	Feb	60
13	Brown	a0815	Apr	30
14	Brown	a4711	Dec	30
15	Brown	a0815	Feb	50
16	Jones	a0815	Sep	30
17	Jones	a0815	Mar	50
18	Brown	a0815	Nov	20
19	Miller	a0815	Apr	70
20	Jones	a4711	Jun	10

250

Customer	Address	Month	Sales
Miller	a4711	Jul	30
Brown	a4711	Jan	60
Miller	a4711	Jan	30
Miller	a4711	May	70
Miller	a0815	Dec	30
Jones	a4711	Jan	50
Jones	a0815	Aug	50
Brown	a0815	Oct	60
Jones	a4711	Nov	20
Miller	a4711	Mar	40
Brown	a4711	Sep	10
Jones	a0815	Feb	60
Brown	a0815	Apr	30
Brown	a4711	Dec	30
Brown	a0815	Feb	50
Jones	a0815	Sep	30
Jones	a0815	Mar	50
Brown	a0815	Nov	20
Miller	a0815	Apr	70
Jones	a4711	Jun	10

275

Customer	Address	Month	Sales
Miller	a4711	Jul	30
Brown	a4711	Jan	60
Miller	a4711	Jan	30
Miller	a4711	May	70
Miller	a0815	Dec	30
Jones	a4711	Jan	50
Jones	a0815	Aug	50
Brown	a0815	Oct	60
Jones	a4711	Nov	20
Miller	a4711	Mar	40
Brown	a4711	Sep	10
Jones	a0815	Feb	60
Brown	a0815	Apr	30
Brown	a4711	Dec	30
Brown	a0815	Feb	50
Jones	a0815	Sep	30
Jones	a0815	Mar	50
Brown	a0815	Nov	20
Miller	a0815	Apr	70
Jones	a4711	Jun	10

(57) Abstract: Disclosed are a method and system for generating user-defined pivot views of data records contained in a database where, as depicted in Fig. 2a, an underlying real facts table at first is extended by continuous index values (200) which provides a continuous numbering of the facts from '1' to 'x' (x = 20 in the present example). In the resulting pivot view shown in Fig. 2b, in each cell (210) the indices of those facts are presented which sales value has to be summed-up in the corresponding cell. The pivot view is generated by means of a sequence vector. The underlying sequence vector for the pivot view in Fig. 2b is depicted in Fig. 2c and consists of two columns (260, 270), the left column (260) containing continuous numbers from again '1' to 'x' and the right column (270) containing the mentioned index values (275) depicted in Fig. 2a in an ordered arrangement that enables sequentially building-up the pivot view of Fig. 2b.

BEST AVAILABLE COPY